



Figure S4. Phosphotransfer from SiliHK/SiliHpt to orphan response regulators.

SCH4B_3211, SCH4B_1525, and SCH4B_3426 are 3 representative orphan response regulators that did not cause rapid loss of SiliHK/SiliHpt phosphorylation. In contrast, SCH4B_1503 (SiliDGC), the cognate phosphotransfer partner of SiliHK/SiliHpt, caused complete loss of SiliHK/SiliHpt phosphorylation within 5 min. Control reactions with no response regulator added or with the *E. coli* response regulator OmpR also did not cause a rapid loss in SiliHK/SiliHpt phosphorylation.